



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/663,952	06/14/96	LI	W T8/462364

11M1/1210
GOWLING STRATHY & HENDERSON
SUITE 3800
COMMERCE COURT WEST
TORONTO ON M5L 1J3
CANADA

AIR MAIL

EXAMINER

NUZZOLILLO, M

ART UNIT	PAPER NUMBER
----------	--------------

1111

DATE MAILED: 12/10/97

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/663,952

Applicant(s)
Li

Examiner
M. Nuzzolillo

Group Art Unit
1111



☒ Responsive to communication(s) filed on the election filed on 10/1/97.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-31 is/are pending in the application.

Of the above, claim(s) 23-30 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-22 and 31 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☒ Claims 1-31 are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5-9, 13-15, 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fey 5,486,346.

The instant claims require an electrode material wherein a lithiated transition metal oxide functions as a core and a lithium ion conductor is in contact with the core. The lithium ion conductor is a lithium metal oxide as lithium cobalt oxide.

Fey teaches an electrode material comprising a lithium cobalt oxide or lithium nickel oxide (col. 2, lines 39-64). These materials are mixed with a vanadium oxide material and a lithium vanadium oxide results (col. 2, lines 65 to col. 3, lines 1-3 and col. 5, lines 25-42).

The reference does not disclose that the materials have a core and a coating. However, the invention as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made because the skilled artisan recognizes that the materials of Fey must also contain the core and outer layer as the materials of the instant claims are manufactured identically or very similarly to the materials of the prior art.

Art Unit:

3.

Claims 4, 10-12, 16, 22, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fey as applied above in view of Yamaura et al. 5,626,635.

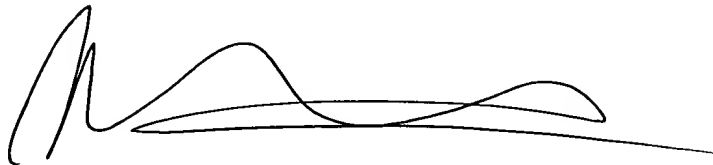
These claims require that the ion conductor comprises a lithium cobalt nickel oxide. Fey is applicable for the reasons stated above. Fey does not disclose the lithium nickel cobalt oxide.

However, Yamaura et al. teach lithium cobalt oxides having a substituent as vanadium or nickel or known (col. 1, lines 29-55). Thus, it would have been obvious to one having ordinary skill in the art to use the lithium nickel cobalt oxide of Yamaura to manufacture the the lithium cobalt oxide of Fey as it is known to have a lithium cobalt with another metal, as vanadium or nickel, to stabilize the material and increase electrode capacity.

Art Unit:

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Nuzzolillo whose telephone number is (703) 305-3776.

M. NUZZOLILLO
PRIMARY EXAMINER
GROUP 1100

A handwritten signature in black ink, consisting of a large, stylized 'M' followed by a series of loops and a long horizontal stroke.

mn

December 8, 1997